

lines long—in the lower half about a line longer. A few isolated glands were developed at a few feet from the valve. Three of the agglomerated glands, (Peyer,) at two or three feet from the valve, were red and swollen; two of them are ulcerated, the ulceration on one is rounded with perpendicular edges, the second offers two ulcerations a line and a half in diameter, separated by a half-destroyed band; the redness of the bottom and edges is the same as that of the rest of the gland; the mucous membrane is entirely destroyed. The mesenteric glands corresponding to the ulceration are reddened, doubled or tripled in size, but not evidently softened. Larger intestine contains fecal matter without intense redness, offering a few scattered vessels, not thickened, but a little softened; strips one-half shorter than usual. Liver of a brownish colour, firm—the two substances not distinct. Spleen of middle size and firm. Kidneys sound.

*Remarks.*—This case offers some analogy with the preceding; the subject was apparently affected with chronic hydrocephalus, and was afterwards taken with the acute affection characterized by the effusion of the yellowish substance. The lymphatic glands were not tuberculous, but gray granulations were numerous beneath the right pleura. A singular complication in this case was the ulceration of the glands of Peyer, ulceration in children not absolutely peculiar to typhoid fever or tuberculous affections.

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ART. IV. *On the Communicability of Cholera.* By S. HENRY DICKSON, M. D. Professor of the Institutes and Practice of Medicine in the Medical College of the State of South Carolina.

A VERY decided majority of the physicians of our country who have published notices of this justly dreaded pestilence, have agreed in denying to it the property of contagiousness. Nay, some among us as well as in Great Britain have gone so far as to arraign the ancient regulations of quarantine and sanitary cordons as useless, cruel and absurd, and to advocate their total abandonment. It must be allowed that these restrictions upon the freedom of trade, and the open intercourse so advantageous to all nations are inconvenient, and in a certain degree injurious and oppressive; but it behoves us to discuss the subject with the most deliberate impartiality before we assume the high responsibility of advising their entire abrogation.

No argument will, I presume, be required to prove the absolute

right of every community to protect itself by whatever measures may be necessary against the introduction of diseases susceptible of transmission through the ordinary channels of social and commercial intercourse. On the other hand it is equally admitted that to justify any government in the institution of such measures, a clear case must be made out, and positive evidence adduced of the communicability of a disease which may have been included in the limit of restrictions and prohibitions. I prefer to employ here the word communicable, in order to avoid for the present, at least, entering into the nice and difficult distinctions between contagion and infection.

I propose to make some remarks on this important question in relation to Asiatic or malignant cholera, with the purpose of drawing the ultimate inference, that if this terrible malady is capable of transmission through the ordinary channels of commerce, all communities have the right, and it is their duty so to obstruct these channels that the extension of the evil may be prevented. In other words it is my intention to show that the quarantine system in its bearing upon the subject of this essay, is reasonable and useful, and ought not to be abandoned or even relaxed, though in the details of the particular arrangements established in different seaports, I may agree with those who find much to censure.

Let us imagine that a government urged by its medical advisers, or disposed to decide a warmly-contested dispute, were to select place and circumstance for a fair and guarded experiment by means of which to test the communicability of any form of pestilence. Could a better plan be suggested than that a vessel sailing from an infected city, and freighted with diseased subjects, should be stranded upon the shore of an almost barren and scarcely inhabited island, where her fated crew should be met by a deputation chosen from the several classes of the population of a healthy town at a safe and convenient distance. Let us suppose that most of the very few residents of the island were attacked with the malady thus imported and previously unknown there, and that a considerable proportion of those sent from the neighbouring town were also seized in the same manner, and that such only as had thus held intercourse with the vessel and her crew, were throughout that whole region of country affected with the novel and well-marked disease alluded to. Would it not now be acknowledged that all doubt was at an end, all further argument unnecessary, and the question settled forever as to the possibility of importing and transmitting the pestilence experimented on?

It is probable, indeed, that discussions would still be carried on as to the particular modes of such importation and transmission, whether

by contagion or infection and the like, but the doctrine of its capability of being communicated would be placed beyond all denial or doubt. Such I conceive to be the fact in regard to cholera. An experiment has been tried very nearly, I think I may affirm precisely, such as I have just indicated, and I proceed to give the details, premising that I have drawn the following statement from the most authentic documents; the reports, namely, of the physicians named below, and the letters and other papers in possession of the city council of Charleston. The occurrences here recorded took place last autumn. It has been my intention from the first, to publish them to the profession, but I delayed writing in the expectation that our city like most others on this wide continent would suffer the ravages of the epidemic, and that opportunity would thus be afforded me of making further observations upon it. Nothing of this kind, thank God, has yet happened; and we are now indulging the uncertain and fearful hope that we may escape it altogether.

On the 31st of October, 1832, the brig *Amelia*, bound to New Orleans, after a tedious and stormy passage from New York, having sailed on the 19th of the same month, was wrecked on the beach of a low and sandy island, about twenty miles from Charleston, far out to seaward, and offering a very scanty vegetation. It is regarded by its owner, Mr. Milne, as quite a healthy spot, and resorted to by him as an agreeable summer retreat—four of his negroes being left upon it as permanent occupiers.

The brig had on board besides her ordinary crew, one hundred and five passengers, one hundred and two of whom were crowded into the steerage. During the voyage which was wet and tempestuous, they were much confined below, and when six days out became sickly. Twenty-four died on the way, and several were ill when she was stranded. The survivors were treated with the greatest humanity by the owner of the island, and took refuge in his buildings. The captain and one of the passengers came up to town with Mr. M. and reported the affair to the municipal authorities, who promptly entered upon the measures dictated by a correct and liberal policy. The deputy port physician, Dr. Elfe, visited the island, and announced the nature of the disease existing there. A boat's crew of wreckers who had gone down to the spot to pursue their usual avocation of saving the vessel and cargo, having returned to the city, one of them was seized with cholera, and died in Elliott street under the care of Dr. SCHMIDT. His was the only case which I had an opportunity of seeing, and it appeared to me well-marked and clearly identical with descriptions now familiar to every one. The rest of the crew were

ordered to the island to perform quarantine, and having embarked, two fell sick, and one died of cholera on the passage down.

Two physicians, Drs. JEWEL and PRITCHARD, were in the meanwhile sent thither to afford the requisite medical attendance upon the sick; every thing necessary for their support and comfort being forthwith furnished as far as was in the power of our intendant and council, to whom all praise is due for their conduct on this occasion.

As neither the brig's crew and passengers, nor the wreckers, an additional number of whom had now gathered about the wreck under permission of the authorities, were willing to remain on the island under quarantine restrictions, eighteen men from the city guard, under the command of a lieutenant, were detailed to perform the duty of a cordon sanitaire in confining them there. These men were stationed between one hundred and two hundred yards from the sick, but in going to and from the landing they were forced to pass much nearer the building of one of the kitchens, which was used as a hospital; nor was it possible to prevent them from communicating with the passengers who were dispersed over the island. After the lapse of a week Dr. HUNT went down to relieve Drs. Pritchard and Jewey, who were worn out with continual and severe exertions. A reverend clergyman of the catholic church, Mr. Byrne, with the zeal and devotion of his sacred calling also visited the island, and remained to dispense the consolations of religion to the sick and dying. Now, let us see what was the result of this intercourse of a number of sound and healthy individuals within this infected vessel, and her diseased passengers and crew. Out of about one hundred and fifty persons collected on the island, twenty-three died, of whom twelve were passengers landed from the brig. Of the *wreckers*, the first to visit the vessel, and the most continually employed about her, some were almost immediately taken ill after their exposure; one died in town, one on the way to quarantine, and in all *eight*.

Of the *four* negroes on the island *three* died, one child and two adults. Of the guard employed on duty there, every man was affected more or less with the symptoms of cholera, with the exception of the commanding officer; nine were reported as attacked seriously, and *one* died; who, as Lieutenant Knights assures me, had never boarded the brig. Of the three physicians employed, Drs. Jewey and Pritchard escaped all suffering but that of extreme fatigue. Dr. Hunt reports himself on the 17th November as attacked by cholera, but quickly recovered.

I cannot help expressing here my sense of the merits of these medical gentlemen, whose humanity and ardour led them to renounce

the comforts and enjoyments of home, for an imprisonment on a dismal sand-bank, exposed to much privation, and to special hazard of sickness. Their conduct does honour to their profession, and to human nature.

Lastly, the nurse who accompanied Dr. Hunt was taken ill, and died. This man had been employed a week previous by Dr. Schmidt as a nurse to the only person who had the disease in the city. He had been assiduous in his attendance, and almost constantly engaged in the application of frictions until the patient died. Thus, there were *thirteen* deaths among the few who visited the island and the wreck.

Such as I have above stated are the simple facts; what are the reasonings and inferences fairly to be founded on them? I pass by all discussion of the *negative* circumstances of this remarkable case, as irrelevant to the question before us. The city of Charleston escaped without suffering the invasion of cholera, although the captain of the brig and a passenger came up to town and communicated with the authorities; although the deputy port physician returned home after visiting, examining, and prescribing for the patients; although the crew of a wrecking boat violated the laws, and returned also for a short time to their homes after boarding the stranded brig; although one of their number died in a very thickly-built part of the town; and although two or three of the individuals quarantined on Folly Island escaped to the main land.

I have no wish to subtract from the real weight and value of these circumstances. I rejoice to be led to the conclusion at which they clearly point, that like all other communicable diseases, cholera requires the concurrence of certain contingencies in order to give efficiency to its generating or exciting cause. Nothing is better understood than that some undefined condition is requisite to the transmission of every malady, whether regarded as contagious or infectious. The most universal of all epidemics, even influenza itself, does not affect every individual within the sphere of its prevalence. Small-pox is not always taken by the exposed subject; nay, inoculation often fails, however carefully performed, and with the most virulent matter; and I appeal to every physician of reading and experience if numerous instances of a similar nature have not come under his immediate cognizance. Thus, the man who died in Elliott street, though visited by numbers during his short illness of a few hours, was happily a cause of disease to no one, nor did those who evaded the imprisonment of quarantine spread it in any direction. We are entirely ignorant of the concurrent conditions essential to

the transmission of cholera, if it be transmissible; we know that they are not fulfilled in the above cases.

The *positive facts*, however, I repeat, are worthy of the most serious consideration on the part of all who are anxious to arrive at the truth. Cholera was unknown on our shores until the date of the unfortunate wreck of the brig *Amelia* on the beach of Folly Island. No local cause capable of originating such a disease is imagined to have existed on that island. Cholera prevailed at New York when the brig sailed from that port; the week before her departure fourteen deaths are recorded in the bill of mortality. Twenty-four of the passengers died of it on the voyage, and several were landed labouring under it. The first boat's crew of wreckers who boarded her were some of them attacked with the same pestilence which had prevailed at New York when she sailed, and of which her passengers had been ill and died. None of the other inhabitants of Charleston were seized in the same way, either at that time or afterwards; the conclusion is therefore irresistible, they received the infection from on board the brig.

The doctrine is now established beyond a reasonable doubt, that cholera is importable. It may be conveyed from one city to another by a vessel, or it may originate during an unfortunate voyage on board a vessel which shall not only disease her passengers, but infect persons who venture on board of her in perfect health on her arrival in port; in either case the vessel herself, or the atmosphere which she contains, shall be in a state capable of communicating the disease to those who visit her. Cholera is therefore clearly a proper subject for quarantine regulations, and these should be strict and perfectly effectual. Restrictions which are useful in their tendency, and necessary to an object, are in every sense justifiable; such only as are inefficient are wrong and oppressive.

It is of little consequence comparatively to inquire what was the cause of cholera on board the brig. She either left New York with a choleric atmosphere filling her hold and cabin, &c. or her passengers and crew were previously infected with cholera and ready to be diseased, or cholera was in some inexplicable manner generated within her during her stormy passage. If the latter, the process must have been very rapid indeed by which her confined atmosphere was contaminated in this peculiar way, for her captain deposed before council, that "the sickness commenced on the sixth day out."

I will not venture to deny the possibility of the spontaneous development of malignant cholera either in the steerage of a ship or in any other specified locality. Every thing must have a beginning—

cholera must have commenced either at Jessore, or at some other place or places, nay, there must have been a first and therefore spontaneous case of small-pox itself.

My principal object was to prove that cholera is communicable by or through a vessel containing sick patients or infected air. From the sufferings of the wreckers, as related above, it is reasonable to infer that if our municipal authorities had been so negligent of their duty as to have allowed the *Amelia* to have entered our harbour, (as the captain had intended,) and laid at one of our wharves, she would have been to our city, as to the desolate and distant island where she was stranded, a focus of pestilence, and spread throughout our terrified population disease and death.

But it would appear further, that not only the wreck of the brig, but the sick on the island were capable of communicating the disease to those who held intercourse with them. The wreck was burnt on the 8th of November; new cases of cholera continued to occur until the 17th, not only among those who had been on board of her, but in some who had never visited her.

Dr. Hunt reports himself as taken ill on the 17th; his nurse died on the tenth, never having boarded her. Of the *four* black residents on Mr. Milne's property three died, two adults and a child, of whom it is not known that they ever went on board of her. Of the eighteen guards nine were reported ill, and one died, of whom I have already mentioned that his officer assured me he had never visited the wreck. On the 19th of November the surviving passengers of the ill-fated vessel took passage on board the *Cicero* for a southern port, and the malignant disease disappeared from our shores, may we venture to hope, forever.

Let me observe that it is admitted by all, whether or not they acknowledge the contagiousness of cholera, that there were cases among those who had not exposed themselves to the vitiated atmosphere of the wrecked vessel. Dr. Jewey, in a note to me remarks, "during my stay on the island, those who were attacked were *generally* such as had visited the brig—there were however some exceptions." From Dr. Pritchard I have a similar statement. In the first report to council from Dr. Hunt, he says, "several of the inhabitants of the island have been attacked, and died without ever visiting the wrecked brig."

In explanation of these undenied facts, it has been suggested that the contaminated atmosphere of the vessel may have been wafted to the shore by favourable winds. This was possible perhaps before her destruction by fire—but how can we account for the cases which oc-

curred after that event which took place on the 8th. We have seen that new reports were made at least until the 17th.

It seems to me abundantly evident that we must attribute these at any rate, if not all such as occurred among those who staid ashore on the island, to mere intercourse with the sick. I will not say how—in what specific manner these unhappy individuals became the medium by which cholera was communicated to others previously in good health; whether by the generation of some impalpable but poisonous effluvium in their own persons, or by the mere conveyance of some portion of contaminated air. It suffices to know that approach to and contact with them were dangerous; that they must be regarded either as fomites or as generators of a contagious virus. Let me not be told then, that their seclusion and temporary confinement under quarantine regulations, are either unnecessary or oppressive. Such restrictions to be effectual in limiting the spread of pestilence must extend to *persons* as well as to *things*, and are not only justifiable but absolutely humane.

On the whole, I cannot but think that a strong case is made out in the preceding record. That cholera is *importable*, and was in this instance *imported*, is not to be denied; that the same thing may occur again and elsewhere, is equally clear, and all governments ought to be aware of the fact, and to institute and establish on a permanent basis the proper and necessary measures of prevention.

That cholera is *contagious* seems to me also to be proved by the above history, and this conclusion can only be evaded by taking shelter in the minute and interminable discussions as to the numberless distinctions suggested between contagion and infection. Such distinctions are however after all, rather etymological than practical, and ought by no means to be permitted to influence the decision of the great question of the propriety and necessity of quarantine regulations.

Charleston, October, 1833.

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ART. V. *Cases of Deranged Menstruation, with Remarks.* By HARVEY LINDSLY, M. D. of Washington, D. C.

THERE is perhaps scarcely any disease to which the human frame is liable, that has attracted more attention, and the treatment of which at the same time is more unsatisfactory and unsettled than the one on which I now propose to make a few remarks.

From the earliest periods it has justly been considered one of the